

State Water Resources Control Board

November 26, 2018

System No. CA0910017

Radenko Odzakovic
Drinking Water Operations Manager
El Dorado Irrigation District - Strawberry
2890 Mosquito Road
Placerville, CA 95667

CITATION NO. 01-09-18C-011

VIOLATION OF STAGE 2 DISINFECTANT BYPRODUCT RULE, MAXIMUM CONTAMINANT LEVEL FOR FIVE HALOACETIC ACIDS FOR SECOND QUARTER OF 2018

Enclosed is Citation No. 01-09-18C-011 (hereinafter "Citation"), issued to the El Dorado Irrigation District – Strawberry (hereinafter "Water System"), public water system. Please note that there are legally enforceable deadlines associated with this Citation.

The Water System will be billed at the State Water Resources Control Board's (hereinafter "State Water Board"), hourly rate for the time spent on issuing this Citation. California Health and Safety Code (hereinafter "CHSC"), Section 116577, provides that a public water system must reimburse the State Water Board for actual costs incurred by the State Water Board for specified enforcement actions, including but not limited to, preparing, issuing and monitoring compliance with a citation. At this time, the State Water Board has spent approximately 2.0 hour(s) on enforcement activities associated with this violation.

The Water System will receive a bill sent from the State Water Board in August of the next fiscal year. This bill will contain fees for any enforcement time spent on the Water System for the current fiscal year.

Any person who is aggrieved by a citation, order or decision issued under authority delegated to an officer or employee of the state board under Article 8 (commencing with CHSC, Section 116625) or Article 9 (commencing with CHSC, Section 116650), of the Safe Drinking Water Act (CHSC, Division 104, Part 12, Chapter 4), may file a petition with the State Water Board for reconsideration of the citation, order or decision. Appendix 1 to the enclosed Citation contains the relevant statutory provisions for filing a petition for reconsideration (CHSC, Section 116701).

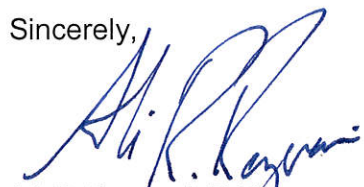
Petitions must be received by the State Water Board within 30 days of the issuance of the citation, order or decision by the officer or employee of the state board. The date of issuance is the date when the Division of Drinking Water mails a copy of the citation, order or decision. If the 30th day falls on a Saturday, Sunday, or state holiday, the petition is due the following business day by 5:00 p.m.

Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

If you have any questions regarding this matter, please contact Salvador Turrubiarres, P.E. at (916) 552 - 9998 or me at (916) 445 - 5285.

Sincerely,



Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosures

cc: Salvador Turrubiarres, P.E., Associate Sanitary Engineer, DDW, SWRCB

Karen Bender, REHS, RD,
Supervising Environmental Health Specialist
El Dorado County Local Primacy Agency
949 B Emerald Bay Road
South Lake Tahoe, CA 96150

Certified Mail No. 7009 2250 0004 3622 1595

STATE OF CALIFORNIA
STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

Name of Public Water System: El Dorado Irrigation District - Strawberry

Water System No: CA0910017

Attention: Radenko O., Drinking Water Division Manager

2890 Mosquito Road

Placerville, CA 95667

Issued: November 26, 2018

CITATION FOR NONCOMPLIANCE WITH
CALIFORNIA HEALTH AND SAFETY CODE, SECTION 116555(a)(1) AND
CALIFORNIA CODE OF REGULATIONS, TITLE 22, SECTION 64533(a)

VIOLATION OF MAXIMUM CONTAMINANT LEVELS FOR
FIVE HALOACETIC ACIDS
SECOND QUARTER OF
2018

The California Health and Safety Code (hereinafter "CHSC"), Section 116650 authorizes the State Water Resources Control Board (hereinafter "State Water Board"), to issue a citation to a public water system when the State Water Board determines that the public water system has violated or is violating the

California Safe Drinking Water Act (hereinafter "California SDWA"), (CHSC, Division 104, Part 12, Chapter 4, commencing with Section 116270), or any regulation, standard, permit, or order issued or adopted thereunder.

The State Water Board, acting by and through its Division of Drinking Water (hereinafter "Division"), and the Deputy Director for the Division, hereby issues Citation No. 01-09-18C-011 (hereinafter "Citation"), pursuant to Section 116650 of the CHSC to the El Dorado Irrigation District - Strawberry (hereinafter "Water System"), for violation of Section 116555(a)(1) and Section 64533(a), Title 22 of the California Code of Regulations (CCR).

A copy of the applicable statutes and regulations are included in Appendix 1, which is attached hereto and incorporated by reference.

STATEMENT OF FACTS

The Water System is classified as a community public water system with a population of 367, serving 148 connections. The Water System operates under Domestic Water Supply Permit No. 83-036 issued by the State Water Board on September 30, 1983. The Water System was issued Permit Amendment No. 01-09-14-PER-009 by the State Water Board on April 30, 2014, to permit the Strawberry Surface Water Treatment Plant (Strawberry WTP, Source No. 0910017-002) as an approved domestic water source of supply.

CHSC, Section 116555(a)(1) requires all public water systems to comply with primary drinking water standards as defined in CHSC, Section 116275(c). Primary drinking water standards include maximum levels of contaminants and the monitoring and reporting requirements as specified in regulations

1 adopted by the State Water Board that pertain to maximum contaminant
2 levels.

3
4 CCR, Title 22, Chapter 15.5 (hereinafter "Stage 2 Disinfection Byproduct
5 Rule" or "S2DBPR") requires all public water systems to monitor and report
6 disinfection byproduct and residual disinfection levels. The S2DBPR applies
7 to any community water system that treats water with a chemical disinfectant
8 in any part of the treatment process or that provides water containing a
9 chemical disinfectant. Section 64533 establishes a maximum contaminant
10 level in drinking water for total trihalomethanes (TTHM) and haloacetic acids
11 (five) (HAA5) in drinking water of 0.080 mg/L and 0.060 mg/L, respectively.

12
13 CCR, Title 22, Division 4, Chapter 15.5, Section 64534.2(d), establishes a
14 routine monitoring frequency for a surface water system serving a population
15 less than 500 of one TTHM and one HAA5 sample per year. The Water
16 System's S2DBPR Monitoring Plan, dated January 21, 2015, describes
17 collecting one dual sample set (TTHM & HAA5) from sample station SWS-
18 SS02 quarterly.

19
20 CCR, Title 22, Section 64535.2, specifies ongoing compliance determinations
21 for quarterly TTHM and HAA5 monitoring; specifically, compliance with the
22 TTHM and HAA5 MCLs are based on the locational running annual average
23 (LRAA), computed quarterly, at each approved sample site. The Water
24 System collects one dual sample set in the distribution system. The Water
25 System's approved S2DBPR sample site:

- 26 • Sample Site SWS-SS02: 16354 Strawberry Lane

The Water System contacted the Division on May 10, 2018, to inform the Division that the Water System had become aware of elevated levels of DBPs. The Division also received via email, the Water Systems recent HAA5 monitoring data at its sample site. A summary of the Water System's recent TTHM and HAA5 monitoring from its sampling site is presented in the table below.

Table 1 - Stage 2 DBPR TTHM Sample Site Results (mg/L)

Sample Site	2Q 2017	3Q 2017	4Q 2017	1Q 2018	2Q 2018
SWS-SS02	MCL = 0.080 mg/L				
Result	0.076	0.064	0.040	0.078	0.094
LRAA	0.047	0.053	0.058	0.065	0.069

Table 2 - Stage 2 DBPR HAA5 Sample Site Results (mg/L)

Sample Site	2Q 2017	3Q 2017	4Q 2017	1Q 2018	2Q 2018
SWS-SS02	MCL = 0.060 mg/L				
Result	0.054	0.055	0.034	0.073	0.140
LRAA	0.047	0.052	0.055	0.054	0.076*

*Exceeds MCL

CCR, Title 22, Section 64463.4 requires public notification to the Division and consumers of a water system whenever any violation of the MCL occurs. Notification to the Division is required by the end of the business day on which the violation has been determined. The Division was notified in accordance with the above-referenced section.

CCR, Title 22, Section 64534.2(d)(6), requires a public water system to conduct an operational evaluation if the Operational Evaluation Level (OEL)

1 exceeds 0.080 mg/L for TTHM or 0.060 mg/L for HAA5 at any monitoring
2 location. The Water System has exceeded the OEL during the second quarter
3 of 2018.

5 DETERMINATION

6 The Division has determined that the Water System failed to comply with
7 Section 64533, Title 22, CCR by exceeding the MCL and OEL for HAA5 during
8 the second quarter of 2018 (for the time period from April 1, 2018 through
9 June 30, 2018) for the sample site location: 16354 Strawberry Lane (SWS –
10 SS02), as shown above.

13 DIRECTIVES

14 The Water System is hereby directed to take the following actions:

- 15
16 1. Comply with CCR, Title 22, Section 64533(a) in future monitoring
17 periods after conducting upgrades of treatment and/or treatment
18 operations.
- 19
20 2. On or before **December 14, 2018**, notify all customers served by the
21 Water System of the violation of CCR, Title 22, Section 64533, in
22 conformance with Section 64463.4(b) and (c) and 64465. Copies of
23 Sections 64463.4 and 64465 are included in Appendix 1. Appendix 2:
24 Notification Template shall be used to fulfill this Directive, unless
25 otherwise approved by the State Water Board. Notify customers of the
26 Water System of the MCL violation. The notification must be completed
27 in accordance with each of the following:

1 a. Completion of Appendix 2 to include the name, address, and
2 telephone number of a Water System official as a source of
3 additional information concerning the public notice. You must
4 also give a legible, written description (preferably typed) of the
5 corrective actions to be taken by the Water System to address
6 the violation. You must use the space provided in Appendix 2
7 for this written description.

8
9 b. By mail or direct delivery of the Public Notification to each
10 customer served by the water system; and

11
12 c. By one of the following secondary methods to reach persons not
13 likely to be reached by mail or direct delivery;

14 i. By publication in a local newspaper, by delivery to
15 community organizations or by posting in conspicuous
16 public places served by the water system or on the
17 internet. If the water system opts to issue the notice via
18 internet website, the public shall remain posted for a
19 minimum of seven (7) consecutive days.

20
21 3. A representative of the Water System shall complete the attached
22 Notification Form. Submit it together with a copy of the public
23 notification required by Directive 2 to the State Water Board on or
24 before **December 31, 2018**.

25
26 4. The Water System shall include this violation in the 2018 Consumer
27 Confidence Report in accordance with CCR, Title 22, Section
28 64481(g)(1).

1 5. On or before **December 31, 2018**, the Water System shall submit a
2 written report of the operational evaluation level exceedance during the
3 second quarter of 2018.

4
5 6. Continue to collect quarterly samples for TTHM's and HAA5's from the
6 distribution system in accordance with an approved S2DBPR
7 monitoring plan. The analytical results shall be reported to the Division
8 electronically by the analyzing laboratory no later than the 10th day
9 following the month in which the analysis was completed.

10
11 7. Submit quarterly reports to the Division. The first quarterly progress
12 report shall describe progress made in the fourth quarter of 2018 and
13 shall be submitted to the Division by **December 10, 2018**. The Water
14 System shall continue submitting these reports until the plan for
15 meeting the projected system demand is fully implemented, or until the
16 Division issues written approval to cease submitting them.

17
18 8. On or before **December 14, 2018** complete and return to the State
19 Water Board the "Notification of Receipt" form attached to this Citation
20 as Appendix 4. Completion of this form confirms that the Water System
21 has received this Citation and understands that it contains legally
22 enforceable directives(s) with due dates.

23
24 All submittals required by this Citation shall be electronically submitted to the
25 State Water Board at the following address. The subject line for all electronic
26 submittals corresponding to this Citation shall include the following
27 information: Water System name and number, citation number and title of the
28 document being submitted.

1
2 Ali R. Rezvani, P.E.
3 Senior Sanitary Engineer – Sacramento District
4 State Water Resources Control Board
5 Division of Drinking Water
6 1001 I Street, 13th Floor
7 Sacramento, CA 95814
8 Dwpdist09@waterboards.ca.gov
9

10 The State Water Board reserves the right to make modifications to this
11 Citation as it may deem necessary to protect public health and safety. Such
12 modifications may be issued as amendments to this Citation and shall be
13 effective upon issuance.
14

15 Nothing in this Citation relieves the Water System of its obligation to meet the
16 requirements of the California SDWA (CHSC, Division 104, Part 12, Chapter
17 4, commencing with Section 116270), or any regulation, standard, permit or
18 order issued or adopted thereunder.
19

20 **PARTIES BOUND**

21 This Citation shall apply to and be binding upon the Water System, its owners,
22 shareholders, officers, directors, agents, employees, contractors, successors,
23 and assignees.
24
25
26

SEVERABILITY

The directives of this Citation are severable, and the Water System shall comply with each and every provision thereof notwithstanding the effectiveness of any provision.

FURTHER ENFORCEMENT ACTION

The California SDWA authorizes the State Water Board to: issue a citation or order with assessment of administrative penalties to a public water system for violation or continued violation of the requirements of the California SDWA or any regulation, permit, standard, citation, or order issued or adopted thereunder including, but not limited to, failure to correct a violation identified in a citation or compliance order. The California SDWA also authorizes the State Water Board to take action to suspend or revoke a permit that has been issued to a public water system if the public water system has violated applicable law or regulations or has failed to comply with an order of the State Water Board, and to petition the superior court to take various enforcement measures against a public water system that has failed to comply with an order of the State Water Board. The State Water Board does not waive any further enforcement action by issuance of this Citation.



Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
State Water Resource Control Board

November 26, 2018

Date



Appendices (4):

1. Applicable Statutes and Regulations
2. Public Notification Template
3. Compliance Certification Form
4. Notification of Receipt Form

Certified Mail No. 7009 2250 0004 3622 1595

cc: Dan Corcoran, Director of Operations

El Dorado Irrigation District

2890 Mosquito Road

Placerville, CA 95667

Karen Bender, REHS, RD

Supervising Environmental Health Specialist

El Dorado County Local Primacy Agency (no attachments)

949 B Emerald Bay Road,

South Lake Tahoe, CA 96150

**APPENDIX 1. APPLICABLE STATUTES AND REGULATIONS FOR
CITATION NO. 01-09-18C-011
Stage 2 Disinfectant Byproduct Rule, for Five Haloacetic Acids, Maximum
Contaminant Level Violation**

NOTE: The following language is provided for the convenience of the recipient, and cannot be relied upon as the State of California's representation of the law. The published codes are the only official representation of the law. Regulations related to drinking water are in Titles 22 and 17 of the California Code of Regulations. Statutes related to drinking water are in the Health & Safety Code, the Water Code, and other codes.

California Health and Safety Code (CHSC):

Section 116271. Transition of CDPH duties to State Board states in relevant part

(a) The state board succeeds to and is vested with all of the authority, duties, powers, purposes, functions, responsibilities, and jurisdiction of the State Department of Public Health, its predecessors, and its director for purposes of all of the following:

- (1) The Environmental Laboratory Accreditation Act (Article 3 (commencing with Section 100825) of Chapter 4 of Part 1 of Division 101).
- (2) Article 3 (commencing with Section 106875) of Chapter 4 of Part 1.
- (3) Article 1 (commencing with Section 115825) of Chapter 5 of Part 10.
- (4) This chapter and the Safe Drinking Water State Revolving Fund Law of 1997 (Chapter 4.5 (commencing with Section 116760)).
- (5) Article 2 (commencing with Section 116800), Article 3 (commencing with Section 116825), and Article 4 (commencing with Section 116875) of Chapter 5.
- (6) Chapter 7 (commencing with Section 116975).
- (7) The Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006 (Division 43 (commencing with Section 75001) of the Public Resources Code).
- (8) The Water Recycling Law (Chapter 7 (commencing with Section 13500) of Division 7 of the Water Code).
- (9) Chapter 7.3 (commencing with Section 13560) of Division 7 of the Water Code.
- (10) The California Safe Drinking Water Bond Law of 1976 (Chapter 10.5 (commencing with Section 13850) of Division 7 of the Water Code).
- (11) Wholesale Regional Water System Security and Reliability Act (Division 20.5 (commencing with Section 73500) of the Water Code).
- (12) Water Security, Clean Drinking Water, Coastal and Beach Protection Act of 2002 (Division 26.5 (commencing with Section 79500) of the Water Code).

(b) The state board shall maintain a drinking water program and carry out the duties, responsibilities, and functions described in this section. Statutory reference to "department," "state department," or "director" regarding a function transferred to the state board shall refer to the state board. This section does not impair the authority of a local health officer to enforce this chapter or a county's election not to enforce this chapter, as provided in Section 116500...

(k)

(1) The state board shall appoint a deputy director who reports to the executive director to oversee the issuance and enforcement of public water system permits and other duties as appropriate. The deputy director shall have public health expertise.

(2) The deputy director is delegated the state board's authority to provide notice, approve notice content, approve emergency notification plans, and take other action pursuant to Article 5 (commencing with Section 116450), to issue, renew, reissue, revise, amend, or deny any public water system permits pursuant to Article 7 (commencing with Section 116525), to suspend or revoke any public water system permit pursuant to Article 8 (commencing with Section 116625), and to issue citations, assess penalties, or issue orders pursuant to Article 9 (commencing with Section 116650). Decisions and actions of the deputy director taken pursuant to Article 5 (commencing with Section 116450) or Article 7 (commencing with Section 116525) are deemed decisions and actions taken by the state board, but are not subject to reconsideration by the state board except as provided in Section 116540. Decisions and actions of the deputy director taken pursuant to Article 8 (commencing with Section 116625) and Article 9 (commencing with Section 116650) are deemed decisions and actions taken by the state board, but any aggrieved person may petition the state board for reconsideration of the decision or action. This subdivision is not a limitation on the state board's authority to delegate any other powers and duties.

Section 116275. Definitions states in relevant part:

(c) "Primary drinking water standards" means:

(1) Maximum levels of contaminants that, in the judgment of the state board, may have an adverse effect on the health of persons.

(2) Specific treatment techniques adopted by the state board in lieu of maximum contaminant levels pursuant to subdivision (j) of Section 116365.

(3) The monitoring and reporting requirements as specified in regulations adopted by the state board that pertain to maximum contaminant levels.

Section 116555. Operational requirements states in relevant part:

- (a) Any person who owns a public water system shall ensure that the system does all of the following:
 - (1) Complies with primary and secondary drinking water standards.
 - (2) Will not be subject to backflow under normal operating conditions.
 - (3) Provides a reliable and adequate supply of pure, wholesome, healthful, and potable water.

Section 116577. Enforcement fee states:

(a) Each public water system shall reimburse the state board for actual costs incurred by the state board for any of the following enforcement activities related to that water system:

- (1) Preparing, issuing, and monitoring compliance with, an order or a citation.
- (2) Preparing and issuing public notification.
- (3) Conducting a hearing pursuant to Section 116625.

(b) The state board shall submit an invoice for these enforcement costs to the public water system that requires payment before September 1 of the fiscal year following the fiscal year in which the costs were incurred. The invoice shall indicate the total hours expended, the reasons for the expenditure, and the hourly cost rate of the state board. The costs set forth in the invoice shall not exceed the total actual costs to the state board of enforcement activities specified in this section.

(c) Notwithstanding the reimbursement of enforcement costs of the local primacy agency pursuant to subdivision (a) of Section 116595 by a public water system under the jurisdiction of the local primacy agency, a public water system shall also reimburse enforcement costs, if any, incurred by the state board pursuant to this section.

(d) "Enforcement costs," as used in this section, does not include "litigation costs" pursuant to Section 116585.

(e) The state board shall not be entitled to enforcement costs pursuant to this section if a court determines that enforcement activities were in error.

(f) Payment of the invoice shall be made within 90 days of the date of the invoice. Failure to pay the invoice within 90 days shall result in a 10-percent late penalty that shall be paid in addition to the invoiced amount.

(g) The state board may, at its sole discretion, waive payment by a public water system of all or any part of the invoice or penalty.

Section 116625. Revocation and suspension of permits states:

(a) The state board, after providing notice to the permittee and opportunity for a hearing, may suspend or revoke any permit issued pursuant to this chapter if the state board determines pursuant to the hearing that the permittee is not complying with the permit, this chapter, or any regulation, standard, or order issued or adopted thereunder, or that the permittee has made a false statement or representation on any application, record, or report maintained or submitted for purposes of compliance with this chapter. If the permittee does not request a hearing within the period specified in the notice, the state board may suspend or revoke the permit without a hearing. If the permittee submits a timely request for a hearing, the hearing shall be before the state board or a member of the state board, in accordance with Section 183 of the Water Code and the rules for adjudicative proceedings adopted under Section 185 of the Water Code. If the permit at issue has been temporarily suspended pursuant to subdivision (b), the notice shall be provided within 15 days of the effective date of the temporary suspension order. The commencement of the hearing under this subdivision shall be as soon as practicable, but no later than 60 days after the effective date of the temporary suspension order, unless the state board grants an extension of the 60 day period upon request of the permittee.

(b) The state board may temporarily suspend any permit issued pursuant to this chapter before any hearing when the action is necessary to prevent an imminent or substantial danger to health. The state board shall notify the permittee of the temporary suspension and the effective date of the temporary suspension and, at the same time, notify the permittee that a hearing has been scheduled. The hearing shall be held as soon as possible, but not later than 15 days after the effective date of the temporary suspension unless the state board grants an extension of the 15 day period upon request of the permittee, and shall deal only with the issue of whether the temporary suspension shall remain in place pending a hearing under subdivision (a). The hearing shall be conducted under the rules for adjudicative proceedings adopted by the state board under Section 185 of the Water Code. The temporary suspension shall remain in effect until the hearing under this subdivision is completed and the state board has made a final determination on the temporary suspension, which shall be made within 15 days after the completion of the hearing unless the state board grants an extension of the 15 day period upon request of the permittee. If the determination is not transmitted within 15 days after the hearing is completed, or any extension of this period requested by the permittee, the temporary suspension shall be of no further effect. Dissolution of the temporary suspension does not deprive the state board of jurisdiction to proceed with a hearing on the merits under subdivision (a).

Section 116650. Citations states:

(a) If the state board determines that a public water system is in violation of this chapter or any regulation, permit, standard, citation, or order issued or adopted thereunder, the state board may issue a citation to the public water system. The citation shall be served upon the public water system personally or by certified mail. Service shall be

deemed effective as of the date of personal service or the date of receipt of the certified mail. If a person to whom a citation is directed refuses to accept delivery of the certified mail, the date of service shall be deemed to be the date of mailing.

(b) Each citation shall be in writing and shall describe the nature of the violation or violations, including a reference to the statutory provision, standard, order, citation, permit, or regulation alleged to have been violated.

(c) A citation may specify a date for elimination or correction of the condition constituting the violation.

(d) A citation may include the assessment of a penalty as specified in subdivision (e).

(e) The state board may assess a penalty in an amount not to exceed one thousand dollars (\$1,000) per day for each day that a violation occurred, and for each day that a violation continues to occur. A separate penalty may be assessed for each violation and shall be in addition to any liability or penalty imposed under any other law.

Section 116701. Petitions to Orders and Decisions states:

(a)

(1) Within 30 days of issuance of an order or decision under authority delegated to an officer or employee of the state board under Article 8 (commencing with Section 116625) or Article 9 (commencing with Section 116650), an aggrieved person may petition the state board for reconsideration.

(2) Within 30 days of issuance of an order or decision under authority delegated to an officer or employee of the state board under Section 116540, the applicant may petition the state board for reconsideration.

(3) Within 30 days of final action by an officer or employee of the state board acting under delegated authority, the owner of a laboratory that was the subject of the final action may petition the state board for reconsideration of any of the following actions:

(A) Denial of an application for certification or accreditation under Section 100855.

(B) Issuance of an order directing compliance under Section 100875.

(C) Issuance of a citation under Section 100880.

(D) Assessment of a penalty under subdivision (e) of Section 100880.

(b) The petition shall include the name and address of the petitioner, a copy of the order or decision for which the petitioner seeks reconsideration, identification of the reason the petitioner alleges the issuance of the order was inappropriate or improper, the specific action the petitioner requests, and other information as the state board may prescribe. The petition shall be accompanied by a statement of points and authorities of the legal issues raised by the petition.

(c) The evidence before the state board shall consist of the record before the officer or employee who issued the order or decision and any other relevant evidence that, in the judgment of the state board, should be considered to implement the policies of this chapter. The state board may, in its discretion, hold a hearing for receipt of additional evidence.

(d) The state board may refuse to reconsider the order or decision if the petition fails to raise substantial issues that are appropriate for review, may deny the petition upon a determination that the issuance of the order or decision was appropriate and proper, may set aside or modify the order or decision, or take other appropriate action. The state board's action pursuant to this subdivision shall constitute the state board's completion of its reconsideration.

(e) The state board, upon notice and hearing, if a hearing is held, may stay in whole or in part the effect of the order or decision subject to the petition for reconsideration.

(f) If an order or decision is subject to reconsideration under this section, the filing of a petition for reconsideration is an administrative remedy that must be exhausted before filing a petition for writ of mandate under Section 100920.5 or 116700.

California Code of Regulations (CCR), Title 22:

California Code of Regulations, Title 22, as noted in the Citation:

CHAPTER 15.5 DISINFECTANT RESIDUALS, DISINFECTION BYPRODUCTS, AND DISINFECTION BYPRODUCT PRECURSORS

Article 1. General Requirements and Definitions

§64530. Applicability of this Chapter.

(a) Community water systems and nontransient noncommunity water systems that treat their water with a chemical disinfectant in any part of the treatment process or which provide water that contains a chemical disinfectant shall comply with the requirements of this chapter beginning on the dates specified in paragraphs (1) or (2), except as provided for in subsections (c) and (d).

(1) Systems using approved surface water and serving 10,000 or more persons shall comply beginning January 1, 2002.

(2) Systems using approved surface water and serving fewer than 10,000 persons and systems using only ground water not under the direct influence of surface water shall comply beginning January 1, 2004.

(b) Transient noncommunity water systems using chlorine dioxide shall comply with the requirements for chlorine dioxide in this chapter beginning on the dates specified in paragraphs (1) or (2).

(1) Systems using approved surface water and serving 10,000 or more persons shall comply beginning January 1, 2002.

(2) Systems using approved surface water and serving fewer than 10,000 persons and systems using only ground water not under the direct influence of surface water shall comply beginning January 1, 2004.

(c) Community water systems, and nontransient noncommunity water systems serving at least 10,000 persons, using a primary or residual disinfectant other than ultraviolet light or delivering water that has been treated with a primary or residual disinfectant other than ultraviolet light shall comply with the Individual Distribution System Evaluation (IDSE) requirements of 40 Code of Federal Regulations, parts 141.600 and either 141.601 and 141.605, 141.602 and 141.605, 141.603, or 141.604 (71 Fed. Reg. 388 (January 4, 2006); as amended at 74 Fed. Reg. 30953 (June 29, 2009)), which are incorporated by reference.

(d) Community water systems and nontransient noncommunity water systems using a primary or residual disinfectant other than ultraviolet light or delivering water that has been treated with a primary or residual disinfectant other than ultraviolet light shall:

(1) Comply with the applicable TTHM and HAA5 compliance date in table 64530-A;

Table 64530-A
TTHM and HAA5 Compliance Dates

Systems of this type...

Shall comply with TTHM and HAA5 monitoring pursuant to section 64534.2(d) by...

(a) Systems that are not part of a combined distribution system and systems that serve the largest population in the combined distribution system and serving a population of...	(1) $\geq 100,000$	April 1, 2012
	(2) 50,000 – 99,999	October 1, 2012
	(3) 10,000 – 49,999	October 1, 2013
	(4) <10,000	October 1, 2013, if no <i>Cryptosporidium</i> monitoring is required pursuant to 40 Code of Federal Regulations part 141.701(a)(4) (71 Fed. Reg. 654 (January 5, 2006)), which is incorporated by reference; or October 1, 2014, if <i>Cryptosporidium</i> monitoring is required pursuant to 40 Code of Federal Regulations part 141.701(a)(4) or (a)(6) (71 Fed. Reg. 654 (January 5, 2006)), which are incorporated by reference.
(b) Other consecutive or wholesale systems that are part of a combined distribution system	At the same time as the system with the earliest compliance date in the combined distribution system.	

(2) Systems required to conduct quarterly monitoring for TTHM and HAA5 pursuant to section 64534.2(d) shall:

(A) Begin monitoring in the first full calendar quarter that includes the compliance date in table 64530-A; and

(B) Make compliance calculations at the end of the fourth calendar quarter that follows the compliance date in table 64530-A and at the end of each subsequent quarter (or earlier if the LRAA calculated based on fewer than four quarters of data would cause the MCL to be exceeded regardless of the monitoring results of subsequent quarters).

(3) Systems required to conduct monitoring at a frequency that is less than quarterly shall:

(A) No later than 12 months after the compliance date in table 64530-A, begin monitoring in the calendar month recommended in the IDSE report prepared pursuant to section 64530(c) or the calendar month identified in the monitoring plan developed pursuant to section 64534.8; and

(B) Make compliance calculations beginning with the first compliance sample taken after the compliance date in table 64530-A.

§64531. Definitions Governing Terms Used in this Chapter.

The definitions in sections 64400 through 64402.30 of chapter 15 and sections 64651.10 through 64651.93 of chapter 17 shall govern the interpretation of terms used in this chapter.

Article 2. Maximum Contaminant Levels for Disinfection Byproducts and Maximum Residual Disinfectant Levels**§64533. Maximum Contaminant Levels for Disinfection Byproducts.**

(a) Using the monitoring and calculation methods specified in sections 64534, 64534.2, 64535, and 64535.2, the primary MCLs for the disinfection byproducts shown in table 64533-A shall not be exceeded in drinking water supplied to the public.

**Table 64533-A
Maximum Contaminant Levels and Detection Limits for Purposes of Reporting
Disinfection Byproducts**

Disinfection Byproduct	Maximum Contaminant Level (mg/L)	Detection Limit for Purposes of Reporting (mg/L)
Total trihalomethanes (TTHM)	0.080	
Bromodichloromethane		0.0010
Bromoform		0.0010
Chloroform		0.0010
Dibromochloromethane		0.0010
Haloacetic acids (five) (HAA5)	0.060	
Monochloroacetic Acid		0.0020
Dichloroacetic Acid		0.0010
Trichloroacetic Acid		0.0010
Monobromoacetic Acid		0.0010
Dibromoacetic Acid		0.0010
Bromate	0.010	0.0050 0.0010 ¹
Chlorite	1.0	0.020

¹ For analysis performed using EPA Method 317.0 Revision 2.0, 321.8, or 326.0

(b) A system installing GAC, membranes, or other technology to limit disinfectant byproducts to comply with this section may apply to the State Board for an extension up to December 31, 2003. Applications for extensions shall include the results of disinfection byproduct monitoring, a description of the technology being installed and how it is expected to affect future disinfection byproduct levels, and a proposed schedule for compliance. If granted an extension, a system shall meet the schedule and interim treatment and monitoring requirements established by the State Board.

(c) The best technology, treatment techniques, or other means available for achieving compliance with the maximum contaminant levels for disinfection byproducts are identified in table 64533-B.

**Table 64533-B
Best Available Technology
Disinfection Byproducts**

*Disinfection Byproduct**Best Available Technology*

TTHM and HAA5	Enhanced coagulation or enhanced softening or GAC10, with chlorine as the primary and residual disinfectant ¹ For all systems that disinfect their source water: (1) Enhanced coagulation or enhanced softening, plus GAC10; (2) Nanofiltration with a molecular weight cutoff ≤1000 Daltons; or
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	<p>(3) GAC20²</p> <p>For consecutive systems and applies only to the disinfected water that consecutive systems buy or otherwise receive:²</p> <p>(1) Systems serving $\geq 10,000$ persons: improved distribution system and storage tank management to reduce residence time, plus the use of chloramines for disinfectant residual maintenance; and</p> <p>(2) Systems serving $< 10,000$ persons: improved distribution system and storage tank management to reduce residence time</p>
Bromate	Control of ozone treatment process to reduce production of bromate
Chlorite	Control of treatment processes to reduce disinfectant demand and control of disinfection treatment processes to reduce disinfectant levels

¹ When using the monitoring and calculation methods specified in sections 64534, 64534.2(a), 64535, and 64535.2(a) and (b).

² When using the monitoring and calculation methods specified in sections 64534, 64534.2(d), 64535, and 64535.2(a) and (e).

§64533.5. Maximum Residual Disinfectant Levels.

(a) Using the monitoring and calculation methods specified in sections 64534, 64534.4, 64535, and 64535.4, the MRDLs for the disinfectants shown in table 64533.5-A shall not be exceeded in drinking water supplied to the public.

Table 64533.5-A
Maximum Residual Disinfectant Level

<i>Disinfectant Residual</i>	<i>MRDL (mg/L)</i>
Chlorine	4.0 (as Cl ₂)
Chloramines	4.0 (as Cl ₂)
Chlorine dioxide	0.8 (as ClO ₂)

(b) Notwithstanding subsection (a), systems may increase residual disinfectant levels of chlorine or chloramines (but not chlorine dioxide) in the distribution system in excess of the levels specified in table 64533.5-A in order to protect public health, to address specific microbiological contamination problems caused by circumstances such as, but not limited to, distribution line breaks, storm run-off events, source water contamination events, natural disasters, or cross-connection events. In such circumstances, systems shall immediately notify the State Board of the source and cause of contamination, the levels of residual disinfectant, other actions being taken to correct the problem, and the expected duration of the exceedance.

(c) The best technologies, treatment techniques, or other means available for achieving compliance with the maximum residual disinfectant levels in this section are control of treatment processes to reduce disinfectant demand and control of disinfection treatment processes to reduce disinfectant levels.

Article 3. Monitoring requirements

§64534. General Monitoring Requirements.

(a) Except as provided in subsection (b), analyses required pursuant to this chapter shall be performed by laboratories certified by the State Board to perform such analyses pursuant to Article 3, commencing with section 100825, of Chapter 4 of Part 1 of Division 101, Health and Safety Code. Unless otherwise directed by the State Board, analyses shall be made in accordance with U.S. EPA approved methods as prescribed in 40 Code of Federal Regulations, part 141.131 (63 Fed. Reg. 69390 (December 16, 1998), as amended at 66 Fed. Reg. 3770 (January 16, 2001), 71 Fed. Reg. 388 (January 4, 2006), 71 Fed. Reg. 37168 (June 29, 2006), and 74 Fed. Reg. 30953 (June 29, 2009)), which are incorporated by reference.

(b) Sample collection, and field tests including pH, alkalinity, and chlorine, chloramines, and chlorine dioxide residual disinfectants, shall be performed by personnel trained to perform such sample collections and/or tests by:

- (1) The State Board;
- (2) A laboratory certified pursuant to subsection (a); or
- (3) An operator, certified by the State Board pursuant to section 106875(a) or (b) of the Health and Safety Code and trained by an entity in paragraph (1) or (2) to perform such sample collections and/or tests.

(c) Systems shall take all samples during normal operating conditions, which exclude those circumstances covered under section 64533.5(b).

(d) A system may apply to the State Board for approval to consider multiple wells drawing water from a single aquifer as one treatment plant for determining the minimum number of TTHM and HAA5 samples required under section 64534.2(a). In order to qualify for this reduction in monitoring requirements a system shall demonstrate to the State Board that the multiple wells produce water from the same aquifer. To make this demonstration, a system shall submit information to the State Board regarding the location, depth, construction, and geologic features of each well, and water quality information for each well. The State Board will use this information to determine whether the wells produce water from a single aquifer.

(e) Systems shall use only data collected under the provisions of this chapter to qualify for reduced monitoring pursuant to this article.

(f) Systems that fail to monitor shall be in violation of the monitoring requirements for the entire monitoring period that a monitoring result would be used in calculating compliance with MCLs or MRDLs, and shall notify the public pursuant to sections 64463, 64463.7, and 64465, in addition to reporting to the State Board pursuant to sections 64537 through 64537.6.

(g) Systems that fail to monitor in accordance with the monitoring plan required by section 64534.8 shall be in violation of the monitoring requirements, and shall notify the public pursuant to sections 64463, 64463.7, and 64465, in addition to reporting to the State Board pursuant to sections 64537 through 64537.6.

§64534.2. Disinfection Byproducts Monitoring.

(a) Community and nontransient noncommunity water systems shall monitor for TTHM and HAA5 at the frequencies and locations indicated in table 64534.2-A.

Table 64534.2-A
Routine and Increased Monitoring Frequency for TTHM and HAA5

COLUMN A <i>Type of System</i>	COLUMN B <i>Persons Served</i>	COLUMN C <i>Minimum monitoring frequency</i>	COLUMN D <i>Sample location in the distribution system & increased monitoring frequencies</i>
Systems using approved surface water	≥10,000	Four samples per quarter per treatment plant	At least 25 percent of all samples collected each quarter at locations representing maximum residence time. Remaining samples taken at locations representative of at least average residence time in the distribution system and representing the entire distribution system, taking into account number of persons served, different sources of water, and different treatment methods ¹ .
	500 - 9,999	One sample per quarter per treatment plant	Locations representing maximum residence time ¹ .
	< 500	One sample per year per treatment plant during month of warmest water temperature	Locations representing maximum residence time ¹ . If the sample (or average of annual samples, if more than one sample is taken) exceeds MCL, system shall increase monitoring to one sample per treatment plant per quarter, taken at a point reflecting the maximum residence time in the distribution system, until system meets reduced monitoring criteria in paragraph (3) of this subsection.
Systems using only ground water not under direct influence of surface water and using chemical disinfectant	≥10,000	One sample per quarter per treatment plant	Locations representing maximum residence time ¹ .
	<10,000	One sample per year per treatment plant during month of warmest water temperature	Locations representing maximum residence time ¹ . If the sample (or average of annual samples, if more than one sample is taken) exceeds MCL, system shall increase monitoring to one sample per treatment plant per quarter, taken at a point reflecting the maximum residence time in the distribution system, until system meets reduced monitoring criteria in paragraph (3) of this subsection.

¹ If a system elects to sample more frequently than the minimum required, at least 25 percent of all samples collected each quarter (including those taken in excess of the required frequency) shall be taken at locations that represent the maximum residence time of the water in the distribution system. The remaining samples shall be taken at locations representative of at least average residence time in the distribution system.

(1) Systems may apply to the State Board to monitor at a reduced frequency in accordance with table 64534.2-B. The application shall include the results of all TOC, TTHM, and HAA5 monitoring conducted in the previous 12 months and the proposed revised monitoring plan as required by section 64534.8. The State Board will evaluate data submitted with the application to determine whether or not the system is eligible for the reduced monitoring specified in table 64534.2-B;

Table 64534.2-B
Reduced Monitoring Frequency for TTHM and HAA5

<i>If the system is a(n) ...</i>	<i>serving...</i>	<i>the system may reduce monitoring if it has monitored at least one year and...</i>	<i>to this level</i>
Approved surface water system which has a source water TOC ¹ level, before any treatment, ≤4.0 mg/L	≥10,000	TTHM ¹ ≤0.040 mg/L and HAA5 ¹ ≤0.030 mg/L	One sample per treatment plant per quarter at distribution system location reflecting maximum residence time.
	500-9,999	TTHM ¹ ≤0.040 mg/L and HAA5 ¹ ≤0.030 mg/L	One sample per treatment plant per year at distribution system location reflecting maximum residence time during month of warmest water temperature.
System using only ground water not under direct influence of surface water and using chemical disinfectant	≥10,000	TTHM ¹ ≤0.040 mg/L and HAA5 ¹ ≤0.030 mg/L	One sample per treatment plant per year at distribution system location reflecting maximum residence time during month of warmest water temperature.
	<10,000	TTHM ¹ ≤0.040 mg/L and HAA5 ¹ ≤0.030 mg/L for two consecutive years OR TTHM ¹ ≤0.020 mg/L and HAA5 ¹ ≤0.015 mg/L for one year	One sample per treatment plant per three-year monitoring cycle at distribution system location reflecting maximum residence time during month of warmest water temperature, with the three-year cycle beginning on January 1 following the quarter in which system qualifies for reduced monitoring.

¹ TOC, TTHM, and HAA5 values based on annual averages.

(2) Systems on reduced monitoring shall resume monitoring at the frequency specified in column C of table 64534.2-A in the quarter immediately following the quarter in which the system exceeds 0.060 mg/L for the TTHM annual average or 0.045 mg/L for the HAA5 annual average, or 4.0 mg/L for the source water TOC annual average. For systems using only ground water not under the direct influence of surface water and serving fewer than 10,000 persons or for systems using approved surface water and serving fewer than 500 persons, if either the TTHM annual average is >0.080 mg/L or the HAA5 annual average is >0.060 mg/L, the system shall go to increased monitoring identified in column D of table 64534.2-A in the quarter immediately following the quarter in which the system exceeds 0.080 mg/L or 0.060 mg/L for the TTHM and HAA5 annual averages, respectively; and

(3) Systems on increased monitoring pursuant to column D of table 64534.2-A may return to routine monitoring specified in column C of table 64534.2-A if, after at least one year of monitoring, TTHM annual average is ≤0.060 mg/L and HAA5 annual average is ≤0.045 mg/L.

(b) Community and nontransient noncommunity water systems using chlorine dioxide shall conduct monitoring for chlorite as follows:

(1) Systems shall take daily samples at the entrance to the distribution system and analyze the samples the same day the samples are taken. For any daily sample that exceeds the chlorite MCL, the system shall take three additional chlorite distribution system samples the following day (in addition to the daily sample required at the entrance to the distribution system) at these locations: as close to the first customer as possible, at a location representative of average residence time, and at a location reflecting maximum residence time in the distribution system. The system shall analyze the additional samples within 48 hours of being notified pursuant to section 64537(b) of the exceedance;

(2) Systems shall take a three-sample set each month in the distribution system. The system shall take one sample at each of the following locations: as close to the first customer as possible, at a location representative of average residence time, and at a location reflecting maximum residence time in the distribution system. Any additional routine sampling shall be conducted in the same manner (as three-sample sets, at the specified locations). The system may use the results of additional monitoring conducted under paragraph (1) to meet the monitoring requirement in this paragraph;

(3) Systems may apply to the State Board to reduce monthly chlorite monitoring in the distribution system pursuant to paragraph (2) to one three-sample set per quarter after one year of monitoring during which no individual chlorite sample taken in the distribution system has exceeded the chlorite MCL and the system has not been required to conduct additional monitoring under paragraph (1). The application shall include the results of all chlorite monitoring conducted in the previous 12 months and the proposed revised monitoring plan as required by section 64534.8. The State Board will evaluate data submitted with the application and determine whether or not the system is eligible to reduce monitoring to one three-sample set per quarter. The system may remain on the reduced monitoring schedule until either any of the three individual chlorite samples taken quarterly in the distribution system under paragraph (2) exceeds the chlorite MCL or the system is required to conduct additional monitoring under paragraph (1), at which time the system shall revert to routine monitoring; and

(4) If a distribution system sample taken pursuant to paragraph (2) exceeds the chlorite MCL, the system shall take and analyze a confirmation sample within 48 hours of being notified pursuant to section 64537(c) of the exceedance. If the system fails to take a confirmation sample pursuant to this paragraph, it shall take and analyze a confirmation sample within two weeks of notification of the results of the first sample.

(c) Community and nontransient noncommunity systems using ozone shall monitor for bromate as follows:

(1) Systems shall take one sample per month for each treatment plant in the system using ozone. Samples shall be taken at the entrance to the distribution system while the ozonation system is operating under normal conditions;

(2) Systems may reduce bromate monitoring from monthly to once per quarter, if the system's running annual average bromate concentration is ≤ 0.0025 mg/L based on monthly bromate measurements under paragraph (1) for the most recent four quarters, with samples analyzed using Method 317.0 Revision 2.0, 321.8, or 326.0. The system shall notify the State Board in writing within 30 days of the change in monitoring frequency; and

(3) Systems shall resume routine bromate monitoring pursuant to paragraph (1) and notify the State Board in writing within 30 days of the change in monitoring frequency if the running annual average bromate concentration, computed quarterly, is greater than 0.0025 mg/L.

(d) By the applicable date specified in section 64530(d), and in lieu of TTHM and HAA5 monitoring in subsection (a):

(1) Community and nontransient noncommunity water systems shall monitor for TTHM and HAA5 at the frequencies and location totals indicated in table 64534.2-C and in accordance with the monitoring plan developed pursuant to section 64534.8;

Table 64534.2-C
Routine Monitoring Frequency for TTHM and HAA5

<i>Source water type</i>	<i>Persons served</i>	<i>Minimum monitoring frequency¹</i>	
		<i>Number of distribution system monitoring locations</i>	<i>Monitoring period²</i>
Systems using approved surface water	$\geq 5,000,000$	20 dual sample sets	per quarter
	1,000,000 – 4,999,999	16 dual sample sets	per quarter
	250,000 – 999,999	12 dual sample sets	per quarter
	50,000 – 249,999	8 dual sample sets	per quarter

	10,000 – 49,999	4 dual sample sets	per quarter
	3,301 – 9,999	2 dual sample sets	per quarter
	500 – 3,300	1 TTHM and 1 HAA5 sample: one at the location with the highest TTHM measurement, one at the location with the highest HAA5 measurement	per quarter
	<500	1 TTHM and 1 HAA5 sample: one at the location with the highest TTHM measurement, one at the location with the highest HAA5 measurement ³	per year
Systems using ground water not under direct influence of surface water	≥500,000	8 dual sample sets	per quarter
	100,000 – 499,999	6 dual sample sets	per quarter
	10,000 – 99,999	4 dual sample sets	per quarter
	500 – 9,999	2 dual sample sets	per year
	<500	1 TTHM and 1 HAA5 sample: one at the location with the highest TTHM measurement, one at the location with the highest HAA5 measurement ³	per year

¹ All systems shall monitor during the month of highest disinfection byproduct concentrations.

² Systems on quarterly monitoring shall take dual sample sets every 90 days at each monitoring location, except for systems using approved surface water and serving 500 – 3,300 persons.

³ Only one location with a dual sample set per monitoring period is needed if highest TTHM and HAA5 concentrations occur at the same location and month.

(2) Undisinfected systems that begin using a disinfectant other than UV light after the applicable dates in 40 Code of Federal Regulations, part 141.600 (71 Fed. Reg. 388 January 4, 2006), which is incorporated by reference, shall consult with the State Board to identify compliance monitoring locations for this subsection. Systems shall then develop a monitoring plan in accordance with section 64534.8 that includes those monitoring locations;

(3) Systems may apply to the State Board to monitor at a reduced frequency in accordance with table 64534.2-D, any time the LRAA is ≤0.040 mg/L for TTHM and ≤0.030 mg/L for HAA5 at all monitoring locations. In addition, the source water annual average TOC level, before any treatment shall be ≤4.0 mg/L at each treatment plant treating approved surface water, based on source water TOC monitoring conducted pursuant to section 64534.6. The application shall include the results of all TOC, TTHM, and HAA5 monitoring conducted in the previous 12 months and the proposed revised monitoring plan as required by section 64534.8. The State Board will evaluate data submitted with the application to determine whether or not the system is eligible for the reduced monitoring specified in table 64534.2-D;

Table 64534.2-D
Reduced Monitoring Frequency for TTHM and HAA5

<i>Minimum monitoring frequency</i>			
<i>Source water type</i>	<i>Persons served</i>	<i>Number of distribution system monitoring locations</i>	<i>Monitoring period¹</i>

Systems using approved surface water	≥5,000,000	10 dual sample sets: at the locations with the five highest TTHM and five highest HAA5 LRAAs	per quarter
	1,000,000 – 4,999,999	8 dual sample sets: at the locations with the four highest TTHM and four highest HAA5 LRAAs	per quarter
	250,000 – 999,999	6 dual sample sets: at the locations with the three highest TTHM and three highest HAA5 LRAAs	per quarter
	50,000 – 249,999	4 dual sample sets: at the locations with the two highest TTHM and two highest HAA5 LRAAs	per quarter
	10,000 – 49,999	2 dual sample sets: at the locations with the highest TTHM and highest HAA5 LRAAs	per quarter
	3,301 – 9,999	2 dual sample sets: one at the location and during the quarter with the highest TTHM single measurement, one at the location and during the quarter with the highest HAA5 single measurement	per year
	500 – 3,300	1 TTHM and 1 HAA5 sample: one at the location and during the quarter with the highest TTHM single measurement, one at the location and during the quarter with the highest HAA5 single measurement; 1 dual sample set per year if the highest TTHM and HAA5 measurements occurred at the same location and quarter	per year
Systems using only ground water not under direct influence of surface water	≥500,000	4 dual sample sets: at the locations with the two highest TTHM and two highest HAA5 LRAAs	per quarter
	100,000 – 499,999	2 dual sample sets: at the locations with the highest TTHM and highest HAA5 LRAAs	per quarter
	10,000 – 99,999	2 dual sample sets: one at the location and during the quarter with the highest TTHM single measurement, one at the location and during the quarter with	per year

	the highest HAA5 single measurement
500 – 9,999	1 TTHM and 1 HAA5 sample: one per year at the location and during the quarter with the highest TTHM single measurement, one at the location and during the quarter with the highest HAA5 single measurement; 1 dual sample set per year if the highest TTHM and HAA5 measurements occurred at the same location and quarter
<500	1 TTHM and 1 HAA5 sample: one every third year at the location and during the quarter with the highest TTHM single measurement, one at the location and during the quarter with the highest HAA5 single measurement; 1 dual sample set every third year if the highest TTHM and HAA5 measurements occurred at the same location and quarter

¹ Systems on quarterly monitoring shall take dual sample sets every 90 days.

(4) Systems on reduced monitoring shall resume routine monitoring pursuant to table 64534.2-C or conduct increased monitoring pursuant to paragraph (5) (if applicable), if the TTHM LRAA is >0.040 mg/L or the HAA5 LRAA is >0.030 mg/L at any monitoring location (for systems with quarterly reduced monitoring); a TTHM sample is >0.060 mg/L or a HAA5 sample is >0.045 mg/L (for systems with annual or less frequent monitoring); or the source water annual average TOC level, before any treatment, is >4.0 mg/L at any treatment plant treating an approved surface water;

(5) Systems that are required to monitor at a particular location annually or less frequently than annually pursuant to table 64534.2-C or 64534.2-D shall increase monitoring to dual sample sets once per quarter (taken every 90 days) at all locations if a TTHM sample is >0.080 mg/L or a HAA5 sample is >0.060 mg/L at any location. Systems on increased monitoring may return to routine monitoring specified in table 64534.2-C if, after at least four consecutive quarters of monitoring, the LRAA for every monitoring location is ≤0.060 mg/L for TTHM and ≤0.045 mg/L for HAA5;

(6) If the operational evaluation level (OEL) exceeds 0.080 mg/L for TTHM or 0.060 mg/L for HAA5 at any monitoring location, systems shall conduct an operational evaluation. The operational evaluation shall include the examination of system treatment and distribution operational practices, including storage tank operations, excess storage capacity, distribution system flushing, changes in sources or source water quality, and treatment changes or problems that may contribute to TTHM and HAA5 formation and what steps could be considered to minimize future exceedances. Systems that are able to identify the cause of the OEL exceedance may submit a written request to the State Board to limit the scope of the evaluation. The request to limit the scope of the evaluation shall not extend the schedule in section 64537(d) for submitting the written report to the State Board;

(7) Systems on reduced monitoring pursuant to table 64534.2-B may remain on reduced monitoring after the applicable date in table 64530-A for compliance with this subsection provided the system meets IDSE requirements under section 64530(c) by qualifying for a 40/30 certification (40 CFR part 141.603) or receiving a very small system waiver (40 CFR part 141.604), meets the reduced monitoring criteria in paragraphs (3) and (4), and does not change or add monitoring locations from those used for compliance monitoring under subsection (a); and

(8) Systems on increased monitoring pursuant to table 64534.2-A shall remain on increased monitoring and conduct increased monitoring pursuant to paragraph (5) at the locations in the monitoring plan developed under section 64534.8 beginning at the applicable date in table 64530-A for compliance with this subsection. Systems on increased monitoring may return to routine monitoring specified in table 64534.2-C pursuant to paragraph (5).

§64534.4. Disinfectant Residuals Monitoring.

(a) Community and nontransient noncommunity water systems that use chlorine or chloramines shall measure the residual disinfectant levels at the same points in the distribution system and at the same time as total coliforms are

sampled, as specified in section 64421. Systems using approved surface water may use the results of residual disinfectant concentration sampling conducted under section 64656, in lieu of taking separate samples.

(b) Public water systems that use chlorine dioxide shall monitor for chlorine dioxide daily at the entrance to the distribution system. For any daily sample that exceeds the MRDL, the system shall take three chlorine dioxide distribution system samples the following day, as follows:

(1) If chlorine dioxide or chloramines are used to maintain a disinfectant residual in the distribution system, or if chlorine is used to maintain a disinfectant residual in the distribution system and there are no disinfection addition points after the entrance to the distribution system (i.e., no booster chlorination), the system shall take three samples as close to the first customer as possible, at intervals of at least six hours; and

(2) If chlorine is used to maintain a disinfectant residual in the distribution system and there are one or more disinfection addition points after the entrance to the distribution system (i.e., booster chlorination), the system shall take one sample at each of the following locations: as close to the first customer as possible, in a location representative of average residence time, and as close to the furthest customer as possible (reflecting maximum residence time in the distribution system).

§64534.6. Disinfection Byproduct Precursors Monitoring.

(a) Systems that use approved surface water and conventional filtration treatment (as defined in section 64651.23) shall take one paired TOC sample (source water and treated water) and one source water alkalinity sample per month per treatment plant at a time representative of normal operating conditions and influent water quality. TOC and alkalinity in the source water shall be monitored prior to any treatment and at the same time as TOC monitoring in the treated water. TOC in the treated water shall be monitored no later than the point of combined filter effluent turbidity monitoring and shall be representative of the treated water.

(b) Systems using approved surface water with an annual average treated water TOC of less than 2.0 mg/L for two consecutive years, or less than 1.0 mg/L for one year, may reduce monitoring for both TOC and alkalinity to one paired sample and one source water alkalinity sample per plant per quarter. The system shall revert to monitoring pursuant to subsection (a) in the first month following the quarter that the annual average treated water TOC is equal to or greater than 2.0 mg/L.

(c) Systems using approved surface water and not monitoring pursuant to subsection (a) or (b):

(1) To qualify for reduced TTHM and HAA5 monitoring pursuant to table 64534.2-B or 64534.2-D, shall take monthly TOC samples every 30 days at a location prior to any treatment; and

(2) Once qualified for reduced TTHM and HAA5 monitoring pursuant to table 64534.2-B or 64534.2-D, may reduce source water TOC monitoring to quarterly TOC samples taken every 90 days at a location prior to any treatment. The system shall revert to source water TOC monitoring pursuant to paragraph (1) in the first month following the quarter that the annual average source water TOC is greater than 4.0 mg/L.

§64534.8. Monitoring Plans.

(a) A system shall develop and submit to the State Board a monitoring plan. The system shall implement the plan after State Board review and approval. The system shall maintain the plan and make it available for inspection by the general public no later than 30 days following the applicable compliance date in sections 64530(a) or (b), and (d).

(b) The State Board will evaluate the plan based on the following required elements:

(1) Specific locations and schedules for collecting samples for any parameters included in this chapter, including seasonal variations if applicable;

(2) How the system will calculate compliance with MCLs, MRDLs, and treatment techniques; and

(3) For compliance monitoring pursuant to section 64534.2(d), monitoring dates and the elements specified in paragraphs (1) and (2).

(c) Systems that submitted an IDSE report pursuant to section 64530(c) shall monitor for TTHM and HAA5 under section 64534.2(d) at the locations and months recommended in the IDSE report, unless the State Board requires other locations or additional locations after its review of the IDSE report.

(d) Systems not required to submit an IDSE report pursuant to section 64530(c) and that:

(1) Do not have sufficient TTHM and HAA5 compliance monitoring locations under section 64534.2(a) to identify the required number of TTHM and HAA5 compliance monitoring locations indicated in 40 Code of Federal

Regulations part 141.605(b) (71 Fed. Reg. 388 (January 4, 2006)), as amended at 74 Fed. Reg. 30953 (June 29, 2009)), which is incorporated by reference, shall:

(A) Identify additional locations by alternating selection of locations representing high TTHM levels and high HAA5 levels until the required number of compliance monitoring locations have been identified; and

(B) Provide the rationale in the plan for identifying the locations as having high levels of TTHM or HAA5.

(2) Have more TTHM and HAA5 compliance monitoring locations under section 64534.2(a) than required for TTHM and HAA5 compliance monitoring indicated in 40 Code of Federal Regulations part 141.605(b) (71 Fed. Reg. 388 (January 4, 2006)), as amended at 74 Fed. Reg. 30953 (June 29, 2009)), which is incorporated by reference, shall identify the locations to use by alternating selection of locations representing high TTHM levels and high HAA5 levels until the required number of compliance monitoring locations have been identified.

(e) The plan developed for compliance monitoring pursuant to section 64534.2(d) may be revised to reflect changes in treatment, distribution system operations and layout (including new service areas), or other factors that may affect TTHM or HAA5 formation, or for State Board -approved reasons, after consultation with the State Board regarding the need for changes and the appropriateness of changes. Systems shall comply with the requirements of subsection (a) for the revised plan. If monitoring locations are changed, systems shall replace existing compliance monitoring locations having the lowest LRAA with new locations that reflect the current distribution system locations having expected high TTHM or HAA5 levels.

Article 4. Compliance requirements

§64535. General Requirements for Determining Compliance.

(a) All samples taken and analyzed in accordance with section 64534.8 shall be included in determining compliance, pursuant to sections 64535.2, 64535.4, and 64536.4.

(b) For violations of the MCLs in section 64533 or MRDLs in section 64533.5 that may pose an acute risk to human health, notification shall be pursuant to sections 64463, 64463.1, and 64465.

§64535.2. Determining Disinfection Byproducts Compliance.

(a) During the first year of monitoring for disinfection byproducts under sections 64534.2(a), (b), and (c), the system shall comply with paragraphs (1) through (3). During the first year of monitoring for TTHM and HAA5 under section 64534.2(d), the system shall comply with paragraphs (1) through (3) at each monitoring location:

(1) The sum of the first quarter's results, divided by four, shall not exceed the MCLs specified in section 64533.

(2) The sum of the first and second quarter's results, divided by four, shall not exceed the MCLs specified in section 64533.

(3) The sum of the first, second, and third quarter's results, divided by four, shall not exceed the MCLs specified in section 64533.

(b) TTHM and HAA5 MCL compliance, as monitored pursuant to section 64534.2(a), shall be determined as follows:

(1) For systems monitoring quarterly, the running annual arithmetic average, computed quarterly, of quarterly arithmetic averages of all samples collected pursuant to section 64534.2(a) shall not exceed the MCLs specified in section 64533;

(2) For systems monitoring less frequently than quarterly, the average of samples collected that calendar year pursuant to section 64534.2(a) shall not exceed the MCLs specified in section 64533. If the average of the samples collected under section 64534.2(a) exceeds the MCL, the system shall increase monitoring to once per quarter per treatment plant. Compliance with the MCL shall then be determined by the average of the sample that triggered the quarterly monitoring and the following three quarters of monitoring, unless the result of fewer than four quarters of monitoring will cause the running annual average to exceed the MCL, in which case the system is in violation immediately. After monitoring quarterly for four consecutive quarters (including the quarter that triggered the quarterly monitoring), and until such time as monitoring returns to routine monitoring pursuant to section 64534.2(a)(3), compliance shall be determined pursuant to paragraph (1);

(3) If the running annual arithmetic average of quarterly averages covering any consecutive four-quarter period exceeds the MCL, the system is in violation of the MCL and shall notify the public pursuant to sections 64463, 64463.4, and 64465, including language in appendix 64465-G, in addition to reporting to the State Board pursuant to sections 64537 through 64537.6; and

(4) If a public water system fails to complete four consecutive quarters of monitoring, compliance with the

MCL for the last four-quarter compliance period shall be based on an average of the available data.

(c) Compliance for bromate shall be based on a running annual arithmetic average, computed quarterly, of monthly samples (or, for months in which the system takes more than one sample, the average of all samples taken during the month) collected by the system as prescribed by section 64534.2(c). If the average of samples covering any consecutive four-quarter period exceeds the MCL, the system is in violation of the MCL and shall notify the public pursuant to sections 64463, 64463.4, and 64465, including language in appendix 64465-G, in addition to reporting to the State Board pursuant to sections 64537 through 64537.6. If a public water system fails to complete 12 consecutive months of monitoring, compliance with the MCL for the last four-quarter compliance period shall be based on an average of the available data.

(d) Compliance for chlorite shall be based on the results of samples collected by the system pursuant to section 64534.2(b).

(1) If any daily sample taken at the entrance to the distribution system exceeds the chlorite MCL and one (or more) of the three samples taken in the distribution system pursuant to section 64534.2(b)(1) exceeds the chlorite MCL, the system is in violation of the MCL and shall take immediate corrective action to reduce the concentration of chlorite to a level below the MCL. The system shall notify the State Board within 48 hours of the determination and notify the public pursuant to the procedures for acute health risks in sections 64463, 64463.1, and 64465, including language in appendix 64465-G, in addition to reporting to the State Board pursuant to sections 64537 through 64537.6. Failure to take samples in the distribution system the day following an exceedance of the chlorite MCL at the entrance to the distribution system is also an MCL violation and the system shall notify and report as described in this paragraph;

(2) If the average of an individual sample from the three-sample set taken pursuant to section 64534.2(b)(2) and its confirmation sample taken pursuant to section 64634.2(b)(4) exceeds the chlorite MCL, the system is in violation of the MCL and shall take the corrective action and notify and report as described in paragraph (1). If the average of the individual sample and its confirmation does not exceed the MCL, the system shall inform the State Board of the results within seven days from receipt of the original analysis. Failure to take a confirmation sample pursuant to section 64534.2(b)(4) is also an MCL violation and the system shall notify and report as described in paragraph (1); and

(3) If any two consecutive daily samples taken at the entrance to the distribution system exceed the chlorite MCL and all distribution system samples taken pursuant to section 64534.2(b)(1) are less than or equal to the chlorite MCL, the system is in violation of the MCL and shall take corrective action to reduce the concentration of chlorite to a level below the MCL at the point of sampling. The system shall notify the public pursuant to the procedures for nonacute health risks in sections 64463, 64463.4, and 64465, including the language in appendix 64465-G, in addition to reporting to the State Board pursuant to sections 64537 through 64537.6. Failure to monitor at the entrance to the distribution system the day following an exceedance of the chlorite MCL at the entrance to the distribution system is also an MCL violation and the system shall notify and report as described in this paragraph.

(e) TTHM and HAA5 MCL compliance, as monitored pursuant to section 64534.2(d), shall be determined as follows:

(1) For systems monitoring quarterly, each locational running annual average (LRAA), computed quarterly, shall not exceed the MCLs specified in section 64533;

(2) For systems monitoring annually or less frequently, each sample collected shall not exceed the MCLs specified in section 64533. If no sample exceeds the MCL, the sample result for each monitoring location shall be considered the LRAA for the monitoring location. If any sample exceeds the MCL, systems shall increase monitoring pursuant to section 64534.2(d)(5). Compliance with the MCL shall then be determined by the average of the sample that triggered the quarterly monitoring and the following three quarters of monitoring, unless the result of fewer than four quarters of monitoring will cause the LRAA to exceed the MCL, in which case the system is in violation immediately. After monitoring quarterly for four consecutive quarters (including the quarter that triggered the quarterly monitoring), and until such time as monitoring returns to routine monitoring pursuant to section 64534.2(d)(5), compliance shall be determined pursuant to paragraph (1);

(3) If a system fails to complete four consecutive quarters of monitoring, compliance with the MCL for the last four-quarter compliance period shall be based on an average of the available data. If more than one sample per quarter is taken at a monitoring location, all the samples taken in the quarter at that monitoring location shall be averaged to determine a quarterly average to be used in the LRAA calculation; and

(4) If the LRAA exceeds the MCL, calculated based on four consecutive quarters of monitoring (or the LRAA calculated based on fewer than four quarters of data if the MCL would be exceeded regardless of the monitoring results of subsequent quarters), the system is in violation of the MCL and shall notify the public pursuant to sections 64463, 64463.4, and 64465, including the language in appendix 64465-G, in addition to reporting to the State Board pursuant to sections 64537 through 64537.6.

§64535.4. Determining Disinfectant Residuals Compliance.

(a) During the first year of monitoring for disinfection residuals under section 64534.4 the system shall comply with the following:

- (1) The sum of the first quarter's results, divided by four, shall not exceed the MRDLs specified in section 64533.5;
- (2) The sum of the first and second quarter's results, divided by four, shall not exceed the MRDLs specified in section 64533.5; and
- (3) The sum of the first, second, and third quarter's results, divided by four, shall not exceed the MRDLs specified in section 64533.5.

(b) Chlorine and chloramines MRDL compliance is determined as follows:

(1) Compliance shall be based on a running annual arithmetic average, computed quarterly, of monthly averages of all samples collected by the system under section 64534.4(a). If the average covering any consecutive four-quarter period exceeds the MRDL, the system is in violation of the MRDL and shall notify the public pursuant to sections 64463, 64463.4, and 64465, including language in appendix 64465-G, in addition to reporting to the State Board pursuant to sections 64537 through 64537.6; and

(2) In cases where systems switch between the use of chlorine and chloramines for residual disinfection during the year, compliance shall be determined by including together all monitoring results of both chlorine and chloramines. Reports submitted pursuant to sections 64537 through 64537.6 shall clearly indicate which residual disinfectant was analyzed for each sample.

(c) Compliance for chlorine dioxide shall be based on consecutive daily samples collected by the system under section 64534.4(b).

(1) If any daily sample taken at the entrance to the distribution system exceeds the MRDL, and one (or more) of the three samples taken in the distribution system exceed the MRDL, the system is in violation of the MRDL and shall take immediate corrective action to reduce the concentration of chlorine dioxide to a level below the MRDL. The system shall notify the State Board within 48 hours of the determination, notify the public pursuant to the procedures for acute health risks in sections 64463, 64463.1, and 64465, including language in appendix 64465-G, in addition to reporting to the State Board pursuant to sections 64537 through 64537.6. Failure to take samples in the distribution system the day following an exceedance of the chlorine dioxide MRDL at the entrance to the distribution system is also an MRDL violation and the system shall notify and report as described in this paragraph;

(2) If any two consecutive daily samples taken at the entrance to the distribution system exceed the MRDL and all distribution system samples taken are less than or equal to the MRDL, the system is in violation of the MRDL and shall take corrective action to reduce the concentration of chlorine dioxide to a level below the MRDL at the point of sampling. The system shall notify the public pursuant to the procedures for nonacute health risks in sections 64463, 64463.4, and 64465, including language in appendix 64465-G, in addition to reporting to the State Board pursuant to sections 64537 through 64537.6. Failure to monitor at the entrance to the distribution system the day following an exceedance of the chlorine dioxide MRDL at this site is also an MRDL violation and the system shall notify and report as described in this paragraph.

Article 5. Treatment technique for control of disinfection byproduct precursors (DBPP)**§64536. Alternative Compliance Criteria to the Enhanced Coagulation and Enhanced Softening Performance Requirements.**

(a) Systems using approved surface water and conventional filtration treatment shall meet any one of the alternative compliance criteria in paragraphs (1) through (6) to comply with this article or comply with the requirements of section 64536.2. Systems that meet one of the criteria in paragraphs (1) through (6) shall still comply with monitoring requirements in section 64534.6.

(1) The system's source water TOC level is less than 2.0 mg/L, calculated quarterly as a running annual average.

(2) The system's treated water TOC level is less than 2.0 mg/L, calculated quarterly as a running annual average.

(3) The system's source water TOC level is less than 4.0 mg/L, calculated quarterly as a running annual average; the source water alkalinity is greater than 60 mg/L (as CaCO₃), calculated quarterly as a running annual average; and either

(A) The TTHM and HAA5 running annual averages are no greater than 0.040 mg/L and 0.030 mg/L, respectively; or

(B) Prior to the applicable compliance date in section 64530(a) or (b), the system has applied to the State Board for the approval of, and committed funds to the installation of, technologies that will limit the levels of TTHM and HAA5 to no more than 0.040 mg/L and 0.030 mg/L, respectively. The application to the State Board shall include a description of the technology to be installed, evidence of a commitment to complete the installation, such as a signed contract, bid solicitation, or approved bond measure, and a schedule containing milestones and periodic progress

reports for installation and operation of the technology. These technologies shall be installed and operating not later than June 30, 2005.

(4) The TTHM and HAA5 running annual averages are no greater than 0.040 mg/L and 0.030 mg/L, respectively, and the system uses only chlorine for primary disinfection and maintenance of a residual in the distribution system.

(5) The system's source water SUVA, prior to any treatment and measured monthly, is less than or equal to 2.0 L/mg-m, calculated quarterly as a running annual average.

(6) The system's finished water SUVA, measured monthly, is less than or equal to 2.0 L/mg-m, calculated quarterly as a running annual average.

(b) Systems using approved surface water and conventional filtration treatment and practicing softening that cannot achieve the TOC removal required by section 64536.2(a) shall meet any one of the criteria in paragraphs (1) through (2) below or any one of the criteria in section 64536(a), paragraphs (1) through (6) to comply with this article. Systems that meet one of the criteria in paragraphs (1) through (2) below or one of the criteria in section 64536(a), paragraphs (1) through (6) shall still comply with the monitoring requirements in section 64534.6.

(1) Softening that results in lowering the treated water alkalinity to less than 60 mg/L (as CaCO_3), measured monthly and calculated quarterly as a running annual average; or

(2) Softening that results in removing at least 10 mg/L of magnesium hardness (as CaCO_3), measured monthly and calculated quarterly as an annual running average.

§64536.2. Enhanced Coagulation and Enhanced Softening Performance Requirements.

(a) Systems using approved surface water and conventional filtration treatment (as defined in section 64651.23) shall operate with enhanced coagulation or enhanced softening to achieve the TOC percent removal levels specified in this section, unless the system meets at least one of the alternative compliance criteria listed in section 64536(a) or (b).

(b) Systems shall achieve the Step 1 percent reduction of TOC specified in table 64536.2-A between the source water and the combined filter effluent, unless the State Board approves a system's request for alternate minimum TOC removal (Step 2) requirements under subsection (c). Systems practicing softening shall meet the Step 1 TOC removals in the far-right column (Source water alkalinity >120 mg/L) of table 64536.2-A for the specified source water TOC:

Table 64536.2-A
Step 1 Required Removal of TOC by Enhanced Coagulation and Enhanced Softening
Systems Using Conventional Treatment^{1, 2}

<i>Source-Water TOC, mg/L</i>	<i>Required Removal of TOC</i>		
	<i>Source-Water Alkalinity, mg/L as CaCO_3</i> 0-60	>60-120	>120
>2.0-4.0	35.0%	25.0%	15.0%
>4.0-8.0	45.0%	35.0%	25.0%
>8.0	50.0%	40.0%	30.0%

¹ Systems that meet one of the criteria in section 64536(a), paragraphs (1) through (6) do not have to operate with enhanced coagulation.

² Softening systems that meet one of the criteria in section 64536(b), paragraphs (1) through (2) do not have to operate with enhanced softening.

(c) Systems using approved surface water and conventional treatment that cannot achieve the Step 1 TOC removals required by subsection (b) due to water quality parameters or operational constraints shall apply to the State Board, within three months of failure to achieve the TOC removals required by subsection (b), for approval of Step 2 removal requirements. If the State Board approves the Step 2 removal requirements pursuant to subsection (d), and the system conducted monthly TOC monitoring beginning one year prior to the compliance date specified in section 64530, the Step 2 removal requirements will be retroactive to the compliance date for the purposes of determining compliance.

(d) Applications made to the State Board by systems using enhanced coagulation for approval of Step 2 removal requirements under subsection (c) shall include, as a minimum, results of bench-scale or pilot-scale testing conducted under paragraph (1) of this subsection that were used to determine the alternate enhanced coagulation level.

(1) Alternate enhanced coagulation level is defined as coagulation at a coagulant dose and pH as determined by the method described in paragraphs (1) through (4) such that an incremental addition of 10 mg/L of alum (or equivalent addition of iron coagulant) results in a TOC removal of ≥ 0.3 mg/L. The percent removal of TOC at this point on the "TOC removal versus coagulant dose" curve is then defined as the Step 2 removal requirement for the system. Once approved by the State Board, this Step 2 removal requirement supersedes the minimum TOC removal required by section 64536.2(b). This requirement shall be effective until such time as the State Board approves a new value based on the results of a new bench-scale or pilot-scale test.

(2) Bench-scale or pilot-scale testing of enhanced coagulation shall be conducted by using representative water samples and adding 10 mg/L increments of alum (or equivalent addition of iron coagulant) until the pH is reduced to a level less than or equal to the enhanced coagulation Step 2 target pH shown in table 64536.2-B.

Table 64536.2-B
Enhanced Coagulation Step 2 Target pH

<i>Alkalinity mg/L as CaCO₃</i>	<i>Target PH</i>
0-60	5.5
>60-120	6.3
>120-240	7.0
>240	7.5

(3) For waters with alkalinities of less than 60 mg/L for which the addition of small amounts of alum (or equivalent addition of iron coagulant) drives the pH below 5.5 before significant TOC removal occurs, the system shall add necessary chemicals to maintain the pH between 5.3 and 5.7 in samples until the TOC removal of 0.3 mg/L per 10 mg/L alum added (or equivalent addition of iron coagulant) is reached.

(4) If the TOC removal is consistently less than 0.3 mg/L of TOC per 10 mg/L of incremental alum dose at all dosages of alum (or equivalent addition of iron coagulant), the system is eligible to apply for a waiver of enhanced coagulation requirements. The application shall include, as a minimum, the results of bench-scale or pilot-scale testing conducted under paragraph (1) of this subsection.

§64536.4. Disinfection Byproduct Precursor Compliance Calculations.

(a) Systems not meeting any of the criteria identified in sections 64536(a) or (b) shall comply with requirements contained in sections 64536.2(a) or (b) and shall calculate compliance quarterly, beginning after the system has collected 12 months of data, by determining an annual average using the following method:

(1) Determine actual monthly TOC percent removal, equal to:

$$(1 - [\text{treated water TOC}/\text{source water TOC}]) \times 100.$$

(2) Determine the required monthly TOC percent removal (from either table 64536.2-A or from section 64536.2(c)).

(3) Divide the value in paragraph(a)(1) by the value in paragraph(a)(2).

(4) Add together the results of paragraph(a)(3) for the last 12 months and divide by 12.

(5) If the value calculated in paragraph(a)(4) is less than 1.00, the system is not in compliance with the TOC percent removal requirements.

(b) In any month that one or more of the conditions of sections 64536.4(b)(1) through (b)(6) are met, the system may assign a monthly value of 1.0 (in lieu of the value calculated in section 64536.4(a)(3)) when calculating compliance under the provisions of subsection (a).

(1) The system's source water TOC level, prior to any treatment, is less than or equal to 2.0 mg/L.

(2) The system's treated water TOC level is less than or equal to 2.0 mg/L.

(3) The system's source water SUVA, prior to any treatment, is less than or equal to 2.0 L/mg-m.

(4) The system's finished water SUVA is less than or equal to 2.0 L/mg-m.

(5) A system practicing softening removes at least 10 mg/L of magnesium hardness (as CaCO₃).

(6) A system practicing enhanced softening lowers alkalinity below 60 mg/L (as CaCO₃).

§64536.6. Disinfection Byproduct Precursors Public Notification Requirements.

For systems using conventional treatment, enhanced coagulation or enhanced softening are identified as treatment techniques to control the level of disinfection byproduct precursors in drinking water treatment and distribution systems. If a system fails to comply with the enhanced coagulation or enhanced softening requirements established in this article, the system shall notify the public pursuant to sections 64463, 64463.4, and 64465, including language in appendix 64465-G, in addition to reporting to the State Board pursuant to sections 64537 through 64537.6.

Article 6. Reporting and recordkeeping requirements**§64537. General Reporting and Recordkeeping Requirements.**

(a) Systems required to sample quarterly or more frequently, pursuant to section 64534.2, 64534.4, or 64534.6, shall report to the State Board within 10 days after the end of each quarter in which samples were collected according to section 64469(c), notwithstanding the provisions of sections 64469(a) and (b). Systems required to sample less frequently than quarterly shall report to the State Board within 10 days after the end of each quarter in which samples were collected. Systems shall report information to the State Board in conformance with the requirements of sections 64537.2, 64537.4, and 64537.6.

(b) Systems shall require the laboratory to notify the system the same day samples are taken and analyzed whenever the level of chlorite in an entrance to the distribution system sample taken pursuant to section 64534.2(b)(1) exceeds the chlorite MCL or the level of chlorine dioxide in an entrance to the distribution system sample taken pursuant to section 64534.4(b) exceeds the chlorine dioxide MRDL, and shall ensure that a contact person is available to receive the analytical results 24-hours a day.

(c) Systems shall require the laboratory to notify the supplier within 48 hours whenever the level of chlorite in a single distribution system sample taken pursuant to section 64534.2(b)(1) or (b)(2) exceeds the chlorite MCL or the level of chlorine dioxide in a single distribution system sample taken pursuant to section 64534.4(b) exceeds the chlorine dioxide MRDL, and shall ensure that a contact person is available to receive such analytical results 24-hours a day. The system shall also require the laboratory to immediately notify the State Board of any chlorite MCL or chlorine dioxide MRDL exceedance if the laboratory cannot make direct contact with the designated contact person within 48 hours.

(d) Systems required to conduct an operational evaluation pursuant to section 64534.2(d)(6) shall submit a written report of the evaluation to the State Board no later than 90 days after being notified of the analytical result that caused the OEL exceedance. Systems shall make the written report available to the public upon request. If the State Board approves the system's written request to limit the scope of the evaluation under section 64534.2(d)(6), the system shall keep the written approval with the completed report.

(e) Systems shall retain monitoring plans and records of chemical analyses in accordance with section 64470.

§64537.2. Disinfection Byproducts Reporting.

Systems shall report to the State Board the information specified in tables 64537.2-A and 64537.2-B.

**Table 64537.2-A
Disinfection Byproducts Reporting**

If the system is monitoring under the requirements of section 64534.2(a), (b), or (c) for...

The system shall report...

TTHM and HAA5	(a) on a quarterly or more frequent basis	(1) The number of samples taken during the last quarter; (2) The location, date, and result of each sample taken during the last quarter; (3) The arithmetic average of all samples taken in the last quarter; (4) The annual arithmetic average of the quarterly arithmetic averages of the samples for the last four quarters; and (5) Whether, based on section 64535.2(b), the MCL was violated.
	(b) less frequently than quarterly (but at least annually)	(1) The number of samples taken during the last year; (2) The location, date, and result of each sample taken during the last monitoring period; (3) The arithmetic average of all samples taken over the last year; and (4) Whether, based on section 64535.2(b), the MCL was violated.
	(c) less frequently than annually	(1) The location, date, and result of the last sample taken; and (2) Whether, based on section 64535.2(b), the MCL was violated.
Chlorite		(1) The number of entry point samples taken each month for the last 3 months; (2) The location, date, and result of each sample (both entry point and distribution system) taken during the last quarter; (3) If a confirmation sample is taken pursuant to section 64634.2(b)(4), the average of an individual sample and its confirmation sample; and (4) Whether, based on section 64535.2(d), the MCL was violated, in which month it was violated, and how many times it was violated in each month.
Bromate		(1) The number of samples taken during the last quarter; (2) The location, date, and result of each sample taken during the last quarter; (3) The arithmetic average of the monthly arithmetic averages of all samples taken in the last year; and (4) Whether, based on section 64535.2(c), the MCL was violated.

**Table 64537.2-B
TTHM and HAA5 Reporting**

If the system is monitoring under the requirements of section 64534.2(d) for...

The system shall report...

TTHM and HAA5	(a) For each monitoring location: (1) The number of samples taken during the last quarter; (2) The date and results of each sample taken during the last quarter;
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(3) The arithmetic average of quarterly results for the last four quarters (LRAA);

(4) Whether the LRAA calculated based on fewer than four quarters of data would cause the MCL to be exceeded regardless of the monitoring results of subsequent quarters;

(5) Whether, based on section 64535.2(e), the MCL was violated at any monitoring location; and

(6) Any operational evaluation levels that were exceeded during the quarter and, if so, the location and date, and the calculated TTHM and HAA5 levels.

(b) For a supplier using approved surface water and seeking to qualify for or remain on reduced TTHM/HAA5 monitoring, source water TOC information for each treatment plant that treats approved surface water:

(1) The number of source water TOC samples taken each month during the last quarter;

(2) The date and result of each sample taken during the last quarter;

(3) The quarterly average of monthly samples taken during the last quarter or the result of the quarterly sample; and

(4) The running annual average (RAA) of quarterly averages from the past four quarters; and

(5) Whether the RAA exceeded 4.0 mg/L.

§64537.4. Disinfectants Reporting.

Systems shall report to the State Board the information specified in table 64537.4-A

**Table 64537.4-A
Disinfectants Reporting**

*If the system is monitoring
under the requirements of
section 64534.4 for...*

The system shall report...

Chlorine or chloramines

(1) The number of samples taken during each month of the last quarter.

(2) The monthly arithmetic average of all samples taken in each month for the last 12 months.

(3) The arithmetic average of all monthly averages for the last 12 months.

(4) Whether, based on section 64535.4(b), the MRDL was violated.

Chlorine dioxide

(1) The dates, results, and locations of samples taken during the last quarter.

(2) Whether, based on section 64535.4(c), the MRDL was violated.

(3) Whether the MRDL was exceeded in any two consecutive daily samples and whether the resulting violation was acute or nonacute.

§64537.6. Disinfection Byproduct Precursors and Enhanced Coagulation or Enhanced Softening Reporting.

(a) Systems required to meet the enhanced coagulation or enhanced softening requirements in section 64536.2(a) or (b) shall report the following:

(1) The number of paired (source water and treated water) samples taken during the last quarter.

(2) The location, date, and result of each paired sample and associated alkalinity taken during the last quarter.

(3) For each month in the reporting period that paired samples were taken, the arithmetic average of the percent reduction of TOC for each paired sample and the required TOC percent removal.

(4) Calculations for determining compliance with the TOC percent removal requirements, as provided in section 64536.4(a).

(5) Whether the system is in compliance with the enhanced coagulation or enhanced softening percent removal requirements in section 64536.2 for the last four quarters.

(b) Systems meeting one or more of the alternative compliance criteria in section 64536(a) or (b), in lieu of meeting the requirements in section 64536.2(a) or (b), shall report the following:

- (1) The alternative compliance criterion that the system is using.
- (2) The number of paired samples taken during the last quarter.
- (3) The location, date, and result of each paired sample and associated alkalinity taken during the last quarter.
- (4) The running annual arithmetic average based on monthly averages (or quarterly samples) of source water TOC for systems meeting a criterion in sections 64536(a)(1) or (3) or of treated water TOC for systems meeting the criterion in section 64536(a)(2).
- (5) The running annual arithmetic average based on monthly averages (or quarterly samples) of source water SUVA for systems meeting the criterion in section 64536(a)(5) or of treated water SUVA for systems meeting the criterion in section 64536(a)(6).
- (6) The running annual average of source water alkalinity for systems meeting the criterion in section 64536(a)(3) and of treated water alkalinity for systems meeting the criterion in section 64536(b)(1).
- (7) The running annual average for both TTHM and HAA5 for systems meeting the criterion in section 64536(a)(3) or (4).
- (8) The running annual average of the amount of magnesium hardness removal (as CaCO_3 , in mg/L) for systems meeting the criterion in section 64536(b)(2).
- (9) Whether the system is in compliance with the particular alternative compliance criterion in section 64536(a) or (b).

APPENDIX 2. NOTIFICATION TEMPLATE

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

Este aviso contiene información muy importante sobre su agua potable, por favor lea el aviso en español si va aquí incluido. Si el aviso en español no va incluido aquí, contacte al sistema de agua para pedir una copia.

El Dorado Irrigation District – Strawberry Water System has levels of Haloacetic Acids Above Drinking Water Standards

Our water system recently failed a drinking water standard. Although this is not an emergency, as our customers, you have a right to know what you should do, what happened, and what we are doing to correct this situation.

We routinely monitor for the presence of drinking water contaminants. Testing results we received on [Insert the date the water system received the results] show that our system exceeds the standard, or maximum contaminant level (MCL), for Haloacetic Acids. The MCL standards for Haloacetic Acids are 60 ug/L. The average level of Haloacetic Acids over the last year was [Insert the running annual average for HAA5 result in ug/L].

What should I do?

- **You do not need to use an alternative (e.g. , bottled) water supply.**
 - This is not an immediate risk. If it had been, you would have been notified immediately. However, *some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.*
- If you have other health issues concerning the consumption of this water, you may wish to consult your doctor.

What happened? What was done?

[Describe corrective action] _____

We anticipate resolving the problem within _____.

For more information, please contact [Insert contact name] at [Insert contact phone number] or at the following mailing address: [Insert mailing address].

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

Secondary Notification Requirements

Upon receipt of notification from a person operating a public water system, the following notification must be given within 10 days [Health and Safety Code Section 116450(g)]:

- SCHOOLS: Must notify school employees, students, and parents (if the students are minors).
- RESIDENTIAL RENTAL PROPERTY OWNERS OR MANAGERS (including nursing homes and care facilities): Must notify tenants.
- BUSINESS PROPERTY OWNERS, MANAGERS, OR OPERATORS: Must notify employees of businesses located on the property.

This notice is being sent to you by the El Dorado Irrigation District water system.

State Water System ID#: CA0910017 Date distributed: [Insert date].

APPENDIX 3. COMPLIANCE CERTIFICATION**Citation Number:** 01-09-18C-011**Name of Water System:** El Dorado Irrigation District - Strawberry**System Number:** CA0910017**Certification**

I certify that the users of the water supplied by this water system were notified of the haloacetic acid (HAA) maximum contaminant level violation of California Code of Regulations, Title 22, Section 64533(a) for the compliance period of second quarter of 2018 and the required actions listed below were completed.

Required Action	Date Completed
<i>(Citation Directive 2) Public Notification Method(s) Used:</i>	
<i>(Citation Directive 5) Complete and Submit Operational Evaluation Level Exceedance Report</i>	
<i>(Citation Directive 8) Complete and Submit Notice of Receipt</i>	

Signature of Water System Representative_____
Date

Attach a copy of the public notice distributed to the water system's customers with a copy of the laboratory results from the 5 routine bacteriological samples.

THIS FORM MUST BE COMPLETED AND RETURNED TO THE STATE WATER BOARD, DIVISION OF DRINKING WATER, NO LATER THAN DECEMBER 31, 2018

Disclosure: Be advised that the California Health and Safety Code, Sections 116725 and 116730 state that any person who knowingly makes any false statement on any report or document submitted for the purpose of compliance with the Safe Drinking Water Act may be liable for, respectively, a civil penalty not to exceed five thousand dollars (\$5,000) for each separate violation or, for continuing violations, for each day that violation continues, or be punished by a fine of not more than \$25,000 for each day of violation, or by imprisonment in the county jail not to exceed one year, or by both the fine and imprisonment.

APPENDIX 4. NOTIFICATION OF RECEIPT

Citation Number: 01-09-18C-011

Name of Water System: El Dorado Irrigation District - Strawberry

System Number: CA0910017

Certification

I certify that I am an authorized representative of the El Dorado Irrigation District - Strawberry and that Citation No. 01-09-18C-011 was received on _____. Further I certify that the Citation has been reviewed by the appropriate management staff of the El Dorado Irrigation District - Strawberry and it is clearly understood that Citation No. 01-09-18C-011 contains legally enforceable directives with specific due dates.

Signature of Water System Representative

Date

<p>THIS FORM MUST BE COMPLETED AND RETURNED TO THE STATE WATER BOARD, DIVISION OF DRINKING WATER, NO LATER THAN DECEMBER 14, 2018</p>
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Disclosure: Be advised that the California Health and Safety Code, Sections 116725 and 116730 state that any person who knowingly makes any false statement on any report or document submitted for the purpose of compliance with the Safe Drinking Water Act may be liable for, respectively, a civil penalty not to exceed five thousand dollars (\$5,000) for each separate violation or, for continuing violations, for each day that violation continues, or be punished by a fine of not more than \$25,000 for each day of violation, or by imprisonment in the county jail not to exceed one year, or by both the fine and imprisonment.